

13:00  
15:30

## Posters

- P001 Photobiology Course at University of Education, Winneba, Ghana**  
Joseph Nana Annan (Winneba, Ghana)
- P002 Photoinduced changes in spectral properties of CdTe quantum dots in the presence of ions and albumin**  
Agne Kalnaityte, Saulius Bagdonas (Vilnius, Lithuania)
- P003 NO-sensitivity of a fluorescent protein**  
Chiara Montali<sup>1</sup>, Stefania Abbruzzetti<sup>1</sup>, Stefano Bruno<sup>1</sup>, Arne Franzen<sup>2</sup>, Thomas Gensch<sup>2</sup>, Cristiano Viappiani<sup>1</sup> (<sup>1</sup>Parma, Italy; <sup>2</sup>Juelich, Germany)
- P004 Mechanisms involved in photoactivation of caged prodrugs**  
Cristina Anaya, Sonia Soldevila, Rosa Tormos, Francisco Boscá (Valencia, Spain)
- P005 Chromo- and fluorogenic near-IR porphycenes: platforms for developing biological sensors and actuators**  
Cormac Hally<sup>1</sup>, Oriol Planas<sup>1</sup>, Daniel Fernandez-Llaneza<sup>1</sup>, Oscar Gulias<sup>1</sup>, Thibault Gallavardin<sup>1</sup>, Ingrid Nieves<sup>1</sup>, Rubén Ruiz-González<sup>1</sup>, Else Lemp<sup>2</sup>, Antonio Zanocco<sup>2</sup>, Santi Nonell<sup>1</sup> (<sup>1</sup>Barcelona, Spain; <sup>2</sup>Santiago de Chile, Chile)
- P006 Small particles, big improvement: the use of nanoprobe for reactive oxygen species detection in biological media**  
Roger Bresoli Obach<sup>1</sup>, Renzo Zanocco<sup>2</sup>, Luis Busto<sup>1</sup>, Francisco Najera<sup>3</sup>, Ezequiel Pérez-Inestrosa<sup>3</sup>, Antonio Luis Zanocco<sup>2</sup>, Else Lemp<sup>2</sup>, Rubén Ruiz-González<sup>1</sup>, Santi Nonell<sup>1</sup> (<sup>1</sup>Barcelona, <sup>2</sup>Malaga, Spain; <sup>3</sup>Santiago de Chile, Chile)
- P007 Fluorescence sensing of hydrogen peroxide and total ROS level changes under cisplatin treatment of tumor cells**  
Anastasiia Nerush, Anna Orlova, Kseniia Shchukina, Irina Balalaeva, Natalia Antonova, Elena Zagainova (Nizhny Novgorod, Russian Federation)
- P008 On the utilization of furyl vinylnaphthozoles for singlet oxygen detection in homogeneous, heterogeneous and biological media**  
Antonio L. Zanocco<sup>1</sup>, Renzo P. Zanocco<sup>1</sup>, Roger Bresolí-Obach<sup>2</sup>, Francisco Nájera<sup>3</sup>, Ezequiel Pérez-Inestrosa<sup>3</sup>, Ignacio Chi<sup>1</sup>, Else Lemp<sup>1</sup>, Rubén Ruiz-González<sup>2</sup>, Santi Nonell<sup>2</sup> (<sup>1</sup>Santiago, Chile; <sup>2</sup>Barcelona, <sup>3</sup>Málaga, Spain)
- P009 Optical oxygen sensing in protein hydrogels**  
Alessandro Pozzoli<sup>1</sup>, Veeren M Chauhan<sup>2</sup>, Jonathan W Aylott<sup>2</sup>, Francesca Giuntini<sup>1</sup> (<sup>1</sup>Liverpool, <sup>2</sup>Nottingham, United Kingdom)
- P010 Determination of singlet oxygen using EPR technique for porphyrin dispersed in hydrogel matrix**  
Sandra Valeria Vassiliades<sup>1</sup>, Daniele C Ferreira<sup>2</sup>, Mauricio V. B. Pinheiro<sup>2</sup>, Klaus Krambock<sup>2</sup>, Sivoney F Souza<sup>1</sup>, Francesca Giuntini<sup>3</sup>, Wendel A Alves<sup>1</sup> (<sup>1</sup>Santo André, <sup>2</sup>Belo Horizonte, Brazil; <sup>3</sup>Liverpool, United Kingdom)
- P011 Singlet molecular oxygen generated in dark process. Mechanistic studies using <sup>18</sup>O-labeled hydroperoxides, mass spectrometry, and light emission measurements**  
Paolo Di Mascio<sup>1</sup>, Jean Cadet<sup>2</sup>, Marisa H.G. Medeiros<sup>1</sup> (<sup>1</sup>São Paulo, SP, Brazil; <sup>2</sup>Sherbrooke, Québec, Canada)
- P012 DNA adduct formation in the lungs and brain of rats exposed to low concentrations of [<sup>13</sup>C<sub>2</sub>]-acetaldehyde by inhalation**  
Marisa Helena Gennari Medeiros, Angélica B. Sanchez, Camila C. M. Garcia, Florêncio P. Freitas, Guilherme L. Batista, Fernando S. Lopes, Graziella E. Ronsein, Ivano G. R. Gutz, Paolo Di Mascio (São Paulo, SP, Brazil)

- P013**     **Selective luminescent probe with high temporal resolution**  
Tatsiana Pavich, Denis Shabrov (Minsk, Belarus)
- P014**     **Developing peptide probes to measure intracellular free heme after UVA irradiation**  
Laura D Newton, Sofia I Pascu, Rex M Tyrrell, Ian M Eggleston (Bath, United Kingdom)
- P015**     **Direct and Photosensitised Photochemistry of Linked Uracil and Thymine Dimers**  
Ofelia Rodriguez, Miguel Ángel Miranda (Valencia, Spain)
- P016**     **5-Formyluracil as potential intrinsic DNA photosensitizer**  
Isabel Aparici-Espert, Virginie Lhiaubet-Vallet, Miguel Ángel Miranda (Valencia, Spain)
- P017**     **Are the immunological consequences of achieving vitamin D sufficiency through supplementation *versus* UV irradiation comparable?**  
Kylie A. Morgan, Catherine M. Hawrylowicz, Antony R. Young (London, United Kingdom)
- P018**     **Effect of metals ions on the reactivity of flavonoids towards singlet oxygen**  
Else Lemp, Antonio L. Zanoeco, Jennifer Rodríguez (Santiago, Chile)
- P019**     **Probiotic lipoteichoic acid (LTA) modulates UV-induced immunosuppression and anti-SCC immune response**  
Adrian Friedrich, Valeria Campo, Eliana Cela, Juliana Leoni, Mariela Paz, Daniel Gonzalez Maglio (Buenos Aires, Argentina)
- P020**     **Evaluation of the effects of skin ultraviolet light exposure on vaccination effectiveness**  
Valeria Campo, Eliana Cela, Adrián Friedrich, Juliana Leoni, Daniel González Maglio (Buenos Aires, Argentina)
- P021**     **Human skin keratinocytes exposed to UVA turn photosensitive to visible light**  
Paulo Newton Tonolli, Orlando Chiarelli Neto, Carolina Santacruz Perez, Helena Couto Junqueira, Il-Sei Watanabe, Felipe Gustavo Ravagnani, Waleska Kerllen Martins, Maurício S. Baptista (São Paulo, Brazil)
- P022**     **The antioxidant activity of hypotaurine against UVR-induced oxidative damage in keratinocytes**  
Alessia Baseggio Conrado, Victoria McGuire, Ewan Eadie, Sally Ibbotson (Dundee, United Kingdom)
- P023**     **Modulation of hyaluronan metabolism in human keratinocytes by UV filters**  
Yu-Chun Huang, Yi-Ju Chen, Chao-Hsun Yang, Ting-Ting Li, Hsin-Yi Chou, Li-Chieh Yeh, Kuan-Chun Chen (Taichung City, Taiwan)
- P024**     **Epigenetic alterations in sun-exposed and sun-protected human skin and SCC tumor tissue**  
Rüdiger Greinert, I-Peng Chen, Stefan Henning, Sarah Degenhardt, Beate Volkmer (Buxtehude, Germany)
- P025**     **The role of P38/P53 in UVA-induced oxidative stress and MCP1 increase**  
Agnieszka Wolnicka-Glubisz, Marta Smejda, Ewelina Madej, Lukasz Skalniak (Krakow, Poland)
- P026**     **Ultraviolet Radiation-Induced Production of Nitric Oxide: A multi-cell and multi-donor analysis**  
Graham Neil Holliman (Chilton, United Kingdom)
- P027**     **Grenz Ray Treatments in Dundee: Therapeutic Outcomes and Case Reports**  
Andrea Elizabeth Cochrane, Robert Dawe (Dundee, United Kingdom)
- P028**     **The Application of Read Across for Photoallergy in the Safety Assessment of Fragrance Ingredients**  
Devin O'Brien, Gretchen Ritacco, Mihir Date, Anne Marie Api (Woodcliff Lake, NJ, United States)
- P029**     **Stepwise Evaluation of Fragrance Materials for Phototoxic Potential**  
Gretchen Ritacco, Anne Marie Api (Woodcliff Lake, NJ, United States)

- P030**     **Cutaneous infiltration of plasmacytoid dendritic cells and T regulatory cells in skin lesions of polymorphic light eruption**  
Marina Venturini, Maria Teresa Rossi, Mariachiara Arisi, Arianna Zanca, Marta Fusano, Federico Serana, Piergiacomo Calzavara-Pinton (Brescia, Italy)
- P031**     **Serum levels of tumor necrosis factor- $\alpha$  in patients with psoriasis before, during and after narrow-band UVB phototherapy**  
Marina Venturini, Maria Teresa Rossi, Mariachiara Arisi, Arianna Zanca, Marta Fusano, Federico Serana, Piergiacomo Calzavara-Pinton (Brescia, Italy)
- P032**     **Porphyrin-based Bioconjugates for Use in Photodynamic Therapy (PDT)**  
Alina Meindl, Claire Moylan, Luke Rogers, Eoin M. Scanlan, Mathias O. Senge (Dublin, Ireland)
- P033**     **Metal-Based phthalocyanines as alternative for PDT. An *in vitro* study**  
Laisa Negri<sup>1</sup>, Tassia Martins<sup>1</sup>, Juliana Uzuelli<sup>1</sup>, Loyanne Ramos<sup>1</sup>, Michael Hamblin<sup>2</sup>, Roberto Silva<sup>1</sup> (<sup>1</sup>Sao Paulo, Brazil; <sup>2</sup>Boston, MA, United States)
- P034**     **Phthalocyanine complexes of large metals (Lu and Sn) versus metal –free phthalocyanine: synthesis and photophysical study**  
Ivelina Eneva, Meliha Aliosman, Ivan Angelov, Kalojan Popov, Vanya Mantareva (Sofia, Bulgaria)
- P035**     **Turning on the Light: *In Vitro* Fluorescent Visualization of Oxidative Stress using Novel BODIPY Dyad Systems**  
Susan Callaghan<sup>1</sup>, Mikhail A. Filatov<sup>1</sup>, Huguette Savoie<sup>2</sup>, Ross W. Boyle<sup>2</sup>, Mathias O. Senge<sup>1</sup> (<sup>1</sup>Dublin, Ireland; <sup>2</sup>Hull, United Kingdom)
- P036**     **Synthesis and functionalization of new disubstituted porphyrin systems with potential application as sensitizers in PDT and photochemistry**  
Alina Meindl, Shane Plunkett, Mathias O. Senge (Dublin, Ireland)
- P037**     **New chlorins conjugated with uracil-alditols: synthesis and biological properties**  
Cristina Dias, Nuno M. M. Moura, Maria da Graça P.M.S Neves, Ângela Cunha, Margarida Fardilha, Maria do Amparo F. Faustino (Aveiro, Portugal)
- P038**     **New generation of photosensitizers based on nanodiamonds particles**  
Viktoryia A. Lapina, Alexander V. Vorobey, Tatjana A. Pavich (Minsk, Belarus)
- P039**     **Phototoxic effect of curcumin against prostate cancer**  
Magda Henriques, Juliana Felgueiras, Susana Braga, Margarida Fardilha, Maria Amparo Ferreira Faustino (Aveiro, Portugal)
- P040**     **Synthesis of a peripheral tetra dipropargylamine-substituted Zn(II) designed to be a precursor of phthalocyanine-based nanoPMOs**  
Umit Isci<sup>1</sup>, Fabienne Dumoulin<sup>1</sup>, Jean-Olivier Durand<sup>2</sup>, Vefa Ahsen<sup>1</sup> (<sup>1</sup>Gebze, Turkey; <sup>2</sup>Montpellier, France)
- P041**     **Phthalocyanines: promising strategies and achievements as PDT photosensitisers**  
Fabienne Dumoulin (Gebze, Turkey)
- P042**     **Phthalocyanine-DOTA conjugates as Theranostic agents**  
Ayse Gul Gurek, Duygu Aydin Tekdas, Veysel Koc, Aytac Cavus Kokuroglu, Fabienne Domoulin, Vefa Ahsen (Gebze, Turkey)
- P043**     **Co-Delivery of Daunorubicine and IR-768 by Polymeric Micelles for Chemo-Photodynamic Combination Therapy**  
Katarzyna Tokarska<sup>1</sup>, Łukasz Lamch<sup>2</sup>, Elzbieta Jastrzębska<sup>1</sup>, Michal Chudy<sup>1</sup>, Artur Dybko<sup>1</sup>, Kazimiera A. Wilk<sup>2</sup>, Zbigniew Brzózka<sup>1</sup> (<sup>1</sup>Warsaw, <sup>2</sup>Wrocław, Poland)
- P044**     **Phthalocyanine-based Thin Film Coatings by Layer-by-Layer Method for *In-Vitro* Photodynamic Therapy**  
Yonca Belce, Fevzi Ç. Cebeci (Tuzla, Turkey)

- P045 Investigation of photodynamic therapy potential of tumor targeted and zinc phthalocyanine loaded silica nanoparticles**  
Özge Er<sup>1</sup>, Süleyman Gökhan Çolak<sup>2</sup>, Kasım Ocakoğlu<sup>2</sup>, Mine İnce<sup>2</sup>, Roger Bresolí-Obach<sup>3</sup>, Santi Nonell<sup>3</sup>, Margarita Mora<sup>3</sup>, Maria Lluïsa Sagristà<sup>3</sup>, Fatma Yurt<sup>1</sup> (<sup>1</sup>Izmir, <sup>2</sup>Mersin, Turkey; <sup>3</sup>Barcelona, Spain)
- P046 Folate Targeted Cyclodextrin Nanoassemblies as efficient PDT tools**  
 Roberto Zagami<sup>1</sup>, Valentina Rapozzi<sup>2</sup>, Giuseppe Sortino<sup>1</sup>, Anna Piperno<sup>1</sup>, Angela Scala<sup>1</sup>, Luigi Emilio Xodo<sup>2</sup>, Luigi Monsù Scolaro<sup>1</sup>, Antonino Mazzaglia<sup>1</sup> (<sup>1</sup>Messina, <sup>2</sup>Udine, Italy)
- P047 *In vitro* biological investigations of a set of iodinated porphyrins and of their non-halogenated counterparts**  
Eda Gazel Pehlivan<sup>1</sup>, Uygur Halis Tazebay<sup>1</sup>, Fabienne Dumoulin<sup>1</sup>, Derya Topkaya<sup>2</sup> (<sup>1</sup>Gezbe, <sup>2</sup>İzmir, Turkey)
- P048 Chemotherapy and Singlet Oxygen: a deadly tandem**  
Beatriz Rodríguez-Amigo<sup>1</sup>, Ana Lázaro-Carrillo<sup>2</sup>, Andrea Tabero<sup>2</sup>, Angeles Villanueva<sup>2</sup>, Magdalena Cañete<sup>2</sup>, Juan Carlos Stockert<sup>2</sup>, Maria Luïsa Sagristà<sup>1</sup>, Margarita Mora<sup>1</sup>, Santi Nonell<sup>1</sup> (<sup>1</sup>Barcelona, <sup>2</sup>Madrid, Spain)
- P049 New insights on photoactive proteins suitable for photodynamic therapy**  
Joaquim Torra<sup>1</sup>, Alberto Rodríguez-Pulido<sup>2</sup>, Cristina Flors<sup>2</sup>, Montserrat Agut<sup>1</sup>, Rubén Ruiz-González<sup>1</sup>, Santi Nonell<sup>1</sup> (<sup>1</sup>Barcelona, <sup>2</sup>Madrid, Spain)
- P050 Glycoporphyrin and glycochlorin derivatives: A comparative study**  
Mariana Q. Mesquita, Maria G. P. M. S. Neves, Margarida Fardilha, Maria A. F Faustino (Aveiro, Portugal)
- P051 Synthesis and photophysical properties of a new class of porphyrin–boron diketonate chromophores**  
Leticia D. Costa, Samuel Guieu, João Rocha, Artur M.S. Silva, Maria Amparo F. Faustino, Augusto C. Tomé (Aveiro, Portugal)
- P052 New 5,15-diarylporphyrins (di- and mono-cationic) as antitumor and antibacterial photosensitizers**  
Enrico Caruso, Stefano Banfi, Viviana Orlandi (Varese, Italy)
- P053 Singlet oxygen production and *in vitro* phototoxicity studies on fenofibrate, mycophenolate mofetil, trifusal and their active metabolites**  
Oscar Molins-Molina<sup>1</sup>, Roger Bresolí-Obach<sup>2</sup>, Guillermo Garcia-Lainez<sup>1</sup>, Inmaculada Andreu<sup>1</sup>, Santi Nonell<sup>2</sup>, Miguel A. Miranda<sup>1</sup>, M. Consuelo Jiménez<sup>1</sup> (<sup>1</sup>Valencia, <sup>2</sup>Barcelona, Spain)
- P054 Spectral and photodynamic properties of aluminum phthalocyanines in complex with quantum dots**  
 Daniil Aleksandrovich Gvozdev, Marina Glebovna Strakhovskaya, Vladimir Zakharovich Paschenko (Moscow, Russian Federation)
- P055 Phthalocyanine conjugates with polymeric brushes for photodynamic therapy applications**  
Vanya N. Mantareva<sup>1</sup>, Ivan P. Angelov<sup>1</sup>, Alexander Yakimansky<sup>2</sup>, Ivelina Eneva<sup>1</sup>, Ekaterina G. Borisova<sup>1</sup> (<sup>1</sup>Sofia, Bulgaria; <sup>2</sup>St. Petersburg, Russian Federation)
- P056 Zn(II) phthalocyanines functionalised with aminoacids for photodynamic inactivation**  
Meliha Aliosman<sup>1</sup>, Mahmut Durmuş<sup>2</sup>, Ivan Angelov<sup>1</sup>, Vanya N. Mantareva<sup>1</sup> (<sup>1</sup>Sofia, Bulgaria; <sup>2</sup>Gebze, Turkey)
- P057 Tuning the sensitized formation of reactive oxygen species and bacterial inactivation efficiency by tailored silica-PpIX nanocomposites**  
Giulia Zampini, Loredana Latterini (Perugia, Italy)
- P058 Coarse-Grained Molecular Dynamics Simulations of Cationic Phthalocyanines Interactions with the Bacterial Lipopolysaccharides and LPS Membranes**  
Ilya Kovalenko, Ekaterina Kholina, Marine Bozdaganyan, Philipp Orekhov, Marina Strakhovskaya (Moscow, Russian Federation)

- P059 Photoactivation of a cationic zinc(II) phthalocyanine alters actin cytoskeleton and inhibits melanoma B16F0 cells migration**  
Federico Valli, María C. García Vior, Nicolás Chiarante, Leonor Roguin, Julieta Marino (Buenos Aires, Argentina)
- P060 The modulation of intracellular labile iron by UVA light improves the effectiveness of aminolevulinic acid-based photodynamic therapy of skin cells**  
Dana Beiki, Tina Radka, Olivier Reelfs, Ian Eggleston, Charareh Pourzand (Bath, United Kingdom)
- P061 Intravesical phototherapy of bladder cancer: novel approaches based on local delivery of furocoumarins and phenothiazines**  
Luca Menilli, Giulio Sturaro, Maria Teresa Conconi, Giorgia Miolo (Padova, Italy)
- P062 Phototoxic and immunogenic properties of the red fluorescent protein KillerRed in a mouse tumor model**  
Diana Yuzhakova<sup>1</sup>, Marina Shirmanova<sup>1</sup>, Ludmila Snopova<sup>1</sup>, Ekaterina Serebrovskaya<sup>1,2</sup>, Irina Druzhkova<sup>1</sup>, Grigory Perelman<sup>1</sup>, Ilya Turchin<sup>1</sup>, Vladislav Kamensky<sup>1</sup>, Sergey Lukyanov<sup>1,2</sup>, Konstantin Lukyanov<sup>1,2</sup>, Elena Zagaynova<sup>1</sup> (<sup>1</sup>Nizhny Novgorod, <sup>2</sup>Moscow, Russian Federation)
- P063 *Psammomys obesus*' Harderian glands as an experimental model to study photodynamic process**  
Ouanassa Saadi-Brenkia<sup>1</sup>, Ana Coto-Montes<sup>2</sup> (<sup>1</sup>Boumerdes, Algeria; <sup>2</sup>Oviedo, Spain)
- P064 The role of autophagy in the damage of neurons and glial cells upon photo-induced oxidative stress**  
Elena Berezhnaya, Maria Neginskaya, Viktor Nikul, Anatoly Uzdensky (Rostov-on-Don, Russian Federation)
- P065 PDT effectiveness under normoxic and hypoxic condition in 2D and 3D cancer culture models**  
Malgorzata Kucinska, Kalina Pyka, Hanna Piotrowska, Wojciech Szczolko, Tomasz Goslinski, Marek Murias (Poznan, Poland)
- P066 Gene expression and lipidomics perspectives in dimethyl methylene blue-induced photodynamic therapy (PDT)**  
Felipe Gustavo Ravagnani, Maurício Silva Baptista, Sayuri Miyamoto, Lucas Souza Dantas, Marcos Yukio Yoshinaga (São Paulo, Brazil)
- P067 Live cells response to PDT monitored by digital holographic microscopy**  
Andrey Vladimirovich Belashov, Irina Vladimirovna Semenova, Oleg Svyatoslavovich Vasyutinskii, Nickolay Vladimirovich Petrov, Anna Alexandrovna Zhikhoreva, Anna Vladimirovna Salova, Elena Sergeevna Kornilova, Tatyana Nikolaevna Belyaeva (St Petersburg, Russian Federation)
- P068 Subcellular re-localization of redaporfin modulates the death mechanism of LLC cells triggered by photodynamically-induced oxidative stress**  
Barbara Pucelik<sup>1</sup>, Ewa Biela<sup>1</sup>, Luis Arnaut<sup>2</sup>, Jerzy Dobrucki<sup>1</sup>, Janusz Dąbrowski<sup>1</sup> (<sup>1</sup>Krakow, Poland; <sup>2</sup>Coimbra, Portugal)
- P069 Expression of autophagy related 7 protein (Atg7), light chain 3 (LC3) and Beclin1 following 5-ALA-mediated photodynamic therapy in human colon adenocarcinoma cell line SW620**  
Kinga Walaszek, Marta Woźniak, Barbara Ziółkowska, Piotr Ziółkowski (Wroclaw, Poland)
- P070 The newly synthesized porphyrin with proper light source enhanced effectiveness of PDT in comparison to 5-ALA–in vivo investigation in mice model**  
Marta Woźniak, Kinga Walaszek, Piotr Ziółkowski (Wroclaw, Poland)
- P071 A chemometric study of the hypericin cytotoxicity in tumor and non-tumor cell lines**  
Janice R Perussi, Joyce L.S. Gonçalves, Claudia Bernal, Hidetake Imasato (São Carlos, Brazil)
- P072 Potentiation of antimicrobial action of medicinal drugs with light as a new strategy in aPDT**  
A. Mikulich, A. Tretyakova, V. Knyukshto, L. Plavskaya, I. Leusenka, T. Ananich, A. Sobchuk, V. Plavskii, V. Ulashchik (Minsk, Belarus)
- P073 Characterization of new LED light source for antimicrobial photodynamic inactivation (APDI)**  
Patrycja Ogonowska, Agata Wozniak, Michal Pieranski, Tomasz Wasylew, Mariusz Grinholc, Joanna Nakonieczna (Gdansk, Poland)

- P074 Novel Porphycene-based Bioconjugate as Potential Photosensitizer for Antimicrobial Photodynamic Therapy**  
Ingrid Nieves, Cormac Hally, Oriol Planas, Òscar Gulías, Montserrat Agut, Santi Nonell (Barcelona, Spain)
- P075 Intra-gastric PDT against *Helicobacter pylori*: a stomach wall illumination model**  
Alessio Gnerucci<sup>1</sup>, Silvia Calusi<sup>2</sup>, Giovanni Romano<sup>1</sup>, Paola Faraoni<sup>1</sup>, Giuseppe Tortora<sup>2</sup>, Arianna Menciassi<sup>2</sup>, Franco Fusi<sup>1</sup> (<sup>1</sup>Firenze, <sup>2</sup>Pontedera (PI), Italy)
- P076 Targeted mesoporous silica nanoparticles as carriers of photosensitisers for antimicrobial photodynamic therapy**  
Jaume Nos<sup>1</sup>, Roger Bresolí-Obach<sup>1</sup>, Thibault Gallavardin<sup>2</sup>, Oriol Planas<sup>1</sup>, Montserrat Agut<sup>1</sup>, Rubén Ruiz-González<sup>1</sup>, Santi Nonell<sup>1</sup> (<sup>1</sup>Barcelona, Spain; <sup>2</sup>Mont-Saint-Aignan, France)
- P077 Intra-gastric PDT: preliminary in vitro study of collateral sensitization on a gastric mucosa cell model**  
Paola Faraoni<sup>1</sup>, Alessio Gnerucci<sup>1</sup>, Francesco Ranaldi<sup>1</sup>, Barbara Orsini<sup>1</sup>, Francesca Tatini<sup>2</sup>, Giovanni Romano<sup>1</sup>, Franco Fusi<sup>1</sup> (<sup>1</sup>Firenze, <sup>2</sup>Sesto Fiorentino (FI), Italy)
- P078 Evaluation of PDT efficacy with uniform irradiation on *Helicobacter pylori***  
Iaria Baccani, Alberto Antonelli, Matilde Marini, Alessio Gnerucci, Paola Faraoni, Barbara Orsini, Patrizia Pecile, Giovanni Romano, Gian Maria Rossolini (Firenze, Italy)
- P079 Violet-blue light as a novel probe to reveal mechanisms of oxidative damage in *Campylobacter jejuni***  
Peter George Walker, David Kelly, Aidan Taylor, Julia Weinstein (Sheffield, United Kingdom)
- P080 CAPSULIGHT - Design of an ingestible robotic pill based on LED sources for the treatment of gastrointestinal disorders**  
Franco Fusi<sup>1</sup>, Barbara Orsini<sup>1</sup>, Giovanni Romano<sup>1</sup>, Paola Faraoni<sup>1</sup>, Alessio Gnerucci<sup>1</sup>, Giuseppe Tortora<sup>2</sup>, Arianna Menciassi<sup>2</sup>, Paola Morici<sup>3</sup>, Antonella Battisti<sup>3</sup>, Giovanni Checcucci<sup>3</sup>, Francesco Ghetti<sup>3</sup>, Antonella Sgarbossa<sup>3</sup> (<sup>1</sup>Firenze, <sup>2</sup>Pontedera (PI), <sup>3</sup>Pisa, Italy)
- P081 Reusable PS-polymer materials for Gram(+) and Gram(-) bacteria photoinactivation**  
Kelly A.D.F. Castro<sup>1</sup>, Nuno M.M. Moura<sup>1</sup>, Maria Amparo F. Faustino<sup>1</sup>, Mário M.Q. Simões<sup>1</sup>, José A. S. Cavaleiro<sup>1</sup>, Ângela Cunha<sup>1</sup>, Adelaide Almeida<sup>1</sup>, Armando J. D. Silvestre<sup>1</sup>, Carmem S.R. Freire<sup>1</sup>, Carla Vilela<sup>1</sup>, Shirley Nakagaki<sup>2</sup>, Maria da Graça P. M.S. Neves<sup>1</sup> (<sup>1</sup>Aveiro, Portugal; <sup>2</sup>Curitiba, Brazil)
- P082 Photodynamic inactivation of filamentous fungi with phenothiazinium photosensitizer**  
Henrique Dantas de Menezes<sup>1</sup>, Ludmilla Tonani<sup>1</sup>, Mark Wainwright<sup>2</sup>, Gilberto Ubida Leite Braga<sup>1</sup>, Marcia Regina von Zeska Kress<sup>1</sup> (<sup>1</sup>Ribeirão Preto, Brazil; <sup>2</sup>Liverpool, United Kingdom)
- P083 Photodynamic Inactivation against plant pathogens**  
Michael Glück, Raimund Tenhaken, Kristjan Plaetzer (Salzburg, Austria)
- P084 Sensitivity of three bacteria strains against chlorophyllin hints beyond direct photosensitizing**  
Marcus Krüger<sup>1</sup>, Peter Richter<sup>2</sup>, Tina Meißgeier<sup>2</sup>, Sebastian Michael Strauch<sup>2</sup>, Adeel Nasir<sup>2</sup>, Michael Lebert<sup>2</sup> (<sup>1</sup>Magdeburg, <sup>2</sup>Erlangen, Germany)
- P085bis Use of solar light to disinfect water: the development of a new and sustainable water purifying device**  
Cinzia Spagnul, Ross W. Boyle (Hull, United Kingdom)
- P086 Investigating blue light illumination on human retinal pigment epithelial cell lines and its potential to model AMD *in vitro***  
Ege Kaan Ozkaya, Baljean Dhillon, Pierre Bagnaninchi (Edinburgh, United Kingdom)
- P087 Red light provides partial protection against retinal ganglion cell degeneration in a mouse model of autosomal dominant optic atrophy through the activation of NFκB**  
Kathy Beirne, Malgorzata Rozanowska, Marcela Votruba (Cardiff, United Kingdom)
- P088 Green, red, near-infrared: biophysical investigations on bacterial bilin-binding photoreceptors**  
Eleonora Consiglieri<sup>1</sup>, Alexander Gutt<sup>2</sup>, Luiz Schubert<sup>3</sup>, Stefania Abbruzzetti<sup>1</sup>, Cristiano Viappiani<sup>1</sup>, Wolfgang Gärtner<sup>4</sup>, Aba Losi<sup>1</sup> (<sup>1</sup>Parma, Italy; <sup>2</sup>Mülheim, <sup>3</sup>Düsseldorf, <sup>4</sup>Leipzig, Germany)

- P089 The role of a conserved phenylalanine in LOV photoreceptors: photoacoustics studies and molecular dynamics simulations**  
Aba Losi, Eugenia Polverini (Parma, Italy)
- P090 The Solid-state Photo-CIDNP Effect in Aureochrome LOV-C287S Studied by <sup>13</sup>C MAS NMR**  
Yonghong Ding (Leipzig, Germany)
- P091 Interplay between UV and phototropins: photoreceptor expression, organellar movements and DNA damage**  
Piotr Zgłobicki, Pawel Hermanowicz, Justyna Łabuz, Dominika Jagiełło-Flasińska, Agnieszka Katarzyna Banaś (Krakow, Poland)
- P092 Photobiological action of lasers working in different modes on hydrobionts**  
V. Plavskii<sup>1</sup>, N. Barulin<sup>2</sup>, M. Liman<sup>2</sup>, S. Rahautsou<sup>2</sup>, A. Mikulich<sup>1</sup>, A. Grabtchikov<sup>1</sup>, A. Vodchits<sup>1</sup>, I. Khodasevich<sup>1</sup>, L. Batay<sup>1</sup>, A. Tretyakova<sup>1</sup>, L. Plavskaya<sup>1</sup>, V. Orlovich<sup>1</sup> (<sup>1</sup>Minsk, <sup>2</sup>Gorki, Belarus)
- P093 Influence of Ultraviolet Radiation on Phytoplankton Productivity in Lakes of Southern Chile**  
Lien Rodríguez<sup>1</sup>, Rolando Pedro Cárdenas<sup>2</sup>, Oscar Parra<sup>1</sup>, Lisdelys González<sup>1</sup> (<sup>1</sup>Concepción, Chile; <sup>2</sup>Santa Clara, Cuba)
- P094 Catalytic photodegradation of pharmaceuticals and personal care products preservatives in the aquatic environment**  
Sarka Klementova, Michaela Dusakova, Kristyna Frejlichova, Lucie Doubkova, David Kahoun (Ceske Budejovice, Czech Republic)
- P095 Survey of bacterioplankton response to solar ultraviolet radiation in the Atacama Desert and Chilean Altiplano**  
Wade H Jeffrey<sup>1</sup>, Klaudia Hernandez<sup>2</sup>, Lisa Nigro<sup>1</sup>, Bernadita Valenzuela<sup>3</sup>, Martha Hengst<sup>3</sup>, Cristina Dorador<sup>3</sup> (<sup>1</sup>Pensacola, FL, United States; <sup>2</sup>Viña del Mar, <sup>3</sup>Antofagasta, Chile)
- P096 Free radical generation and evolution in UV-B treated apples: an EPR study**  
Cristina Sgherri<sup>1</sup>, Mike Frank Quartacci<sup>1</sup>, Calogero Pinzino<sup>1</sup>, Annamaria Ranieri<sup>1</sup>, Carolina Fagundes Assumpção<sup>2</sup>, Simone Hickmann Flôres<sup>2</sup>, Alessandro de Oliveira Rios<sup>2</sup> (<sup>1</sup>Pisa, Italy; <sup>2</sup>Porto Alegre, Brazil)
- P097 UV filtration and its impact on some biochemical parameters in wheat**  
Daniele Grifoni<sup>1</sup>, Anna Dallamarta<sup>2</sup>, Francesco Sabatini<sup>1</sup>, Marco Napoli<sup>2</sup>, Simone Orlandini<sup>2</sup>, Francesco Baffetti<sup>2</sup>, Gaetano Zipoli<sup>1</sup> (<sup>1</sup>Sesto Fiorentino (FI), <sup>2</sup>Firenze, Italy)
- P098 UV-B-driven regulation of flavonoid synthesis in peach fruit**  
Marco Santin<sup>1</sup>, Marie-Theres Hauser<sup>2</sup>, Luigi Lucini<sup>3</sup>, Antonella Castagna<sup>1</sup>, Annamaria Ranieri<sup>1</sup> (<sup>1</sup>Pisa, <sup>2</sup>Piacenza, Italy; <sup>3</sup>Wien, Austria)
- P099 Effects of UV-B post-harvest treatments cell wall plasticity of peach fruit (cv. Fairtime) at molecular and biochemical levels**  
Marco Santin<sup>1</sup>, Tommaso Giordani<sup>1</sup>, Andrea Cavallini<sup>1</sup>, Martina Di Santoro<sup>1</sup>, Marie-Theres Hauser<sup>2</sup>, Antonella Castagna<sup>1</sup>, Annamaria Ranieri<sup>1</sup> (<sup>1</sup>Pisa, Italy; <sup>2</sup>Wien, Austria)
- P100 Different responses to solar ultraviolet (UV) and blue radiation in two cultivars of *Vicia faba***  
Yan Yan<sup>1</sup>, Susanne Neugart<sup>2</sup>, Pedro Aphalo<sup>1</sup> (<sup>1</sup>Helsinki, Finland; <sup>2</sup>Großbeeren, Germany)
- P101 The importance of antioxidant protection against UV-mediated photoconversion of hydrogen peroxide in plant leaves**  
Gyula Czégény<sup>1</sup>, Åke Strid<sup>2</sup>, Éva Hideg<sup>1</sup> (<sup>1</sup>Pécs, Hungary; <sup>2</sup>Örebro, Sweden)
- P102 Integrating UV-B signalling into plant shade avoidance networks**  
Ashutosh Sharma<sup>1</sup>, Tom Batstone<sup>1</sup>, Bhavana Sharma<sup>1</sup>, Kerry Franklin<sup>1</sup>, Gareth I Jenkins<sup>2</sup> (<sup>1</sup>Bristol, <sup>2</sup>Glasgow, United Kingdom)
- P103 Flavonols, the most UV-sensitive phenolic compounds in seedlings and mature naturally growing plants of *Arbutus unedo* under UV reduction and UV supplementation experiments**  
Dolors Verdager Murlà<sup>1</sup>, Laura Díaz Guerra<sup>1</sup>, Nikos Nenadis<sup>2</sup>, Joan Font García<sup>1</sup>, Riita Julkunen-Tiitto<sup>3</sup>, Josep-Abel Gonzalez Gutierrez<sup>1</sup>, Laura Llorens Guasch<sup>1</sup> (<sup>1</sup>Girona, Spain; <sup>2</sup>Thessaloniki, Greece; <sup>3</sup>Joensuu, Finland)

- P104 Post-harvest UV treatment changes grapevine berry skin flavonol composition and antioxidant capacities**  
Kristóf Csepregi, László Kőrösi, Péter Teszlák, Éva Hideg (Pécs, Hungary)
- P105 Pre-treatment of peach fruits with UVB radiation resulted in structure-dependent response of the flavonoids after infection with *Monilinia fructicola***  
 Susanne Neugart<sup>1</sup>, Martina Barilari<sup>2</sup>, Marco Santin<sup>2</sup>, Sabrina Sarrocco<sup>2</sup>, Giovanni Vannacci<sup>2</sup>, Monika Schreiner<sup>1</sup>, Annamaria Ranieri<sup>2</sup> (<sup>1</sup>Grossbeeren, Germany; <sup>2</sup>Pisa, Italy)
- P106 Interactions between UV radiation and silica incrustations in grasses**  
 Aleksandra Golob, Katja Klančnik, Jan Kavčič, Vekoslava Stibilj, Katarina Vogel-Mikuš, Mateja Germ, Alenka Gabersčik (Ljubljana, Slovenia)
- P107 Common rockrose *Helianthemum nummularium* response to variable UV-B and temperature regime in the Julian Alps**  
Tadeja Trost Sedej, Rok Damjanic (Ljubljana, Slovenia)
- P108 The effect of light quality on growth, photosynthesis, leaf anatomy and volatile isoprenoids of *Solanum lycopersicum* L.**  
Cecilia Brunetti<sup>1</sup>, Carmen Arena<sup>2</sup>, Tsonko Tsonev<sup>3</sup>, Diliانا Doneva<sup>3</sup>, Veronica De Micco<sup>2</sup>, Marco Michelozzi<sup>1</sup>, Mauro Centritto<sup>1</sup>, Silvia Fineschi<sup>1</sup>, Violeta Velikova<sup>3</sup>, Francesco Loreto<sup>4</sup> (<sup>1</sup>Sesto Fiorentino (FI), <sup>2</sup>Napoli, <sup>4</sup>Roma, Italy; <sup>3</sup>Sofia, Bulgaria)
- P109 PHR and autophagy independently mitigate UVB-induced cell death in *Arabidopsis***  
Gonul Dundar, Sakuya Nakamura, Masanori Izumi, Jun Hidema (Sendai, Japan)
- P110 Leaf metabolic profile of *Medicago truncatula* plants exposed to solar UV radiation and drought stress**  
Neha Rai<sup>1</sup>, Susanne Neugart<sup>2</sup>, Pedro José Aphalo<sup>1</sup> (<sup>1</sup>Helsinki, Finland; <sup>2</sup>Grossbeeren, Germany)
- P111 Visible light induces the expression of a UV-endonuclease gene in the entomopathogenic fungus *Metarhizium acridum***  
 Guilherme Thomaz Pereira Brancini, Márcia Eliana da Silva Ferreira, Gilberto Úbida Leite Braga (Ribeirão Preto, Brazil)
- P112 Novel applications and high value products from SCCA culture collection's Strains**  
Santina Soru<sup>1</sup>, Veronica Malavasi<sup>1</sup>, Alessandro Concas<sup>2</sup>, Giacomo Cao<sup>1</sup> (<sup>1</sup>Cagliari, <sup>2</sup>Pula (CA), Italy)
- P113 Effect of pure green light during barley growth on composition of chlorophylls derivatives and phenolic compounds, gas exchange and photosystem II photochemistry**  
 Zuzana Materová, Jakub Nezval, Jan Semer, Daniel Vrábl, Michal Štroch (Ostrava, Czech Republic)
- P114 Charge Recombination in Biophotovoltaics based on Reaction Centers in Redox hydrogels and on Ubiquinone as Charge Carrier**  
Huijie Zhang<sup>1</sup>, Adrian Ruff<sup>1</sup>, Wolfgang Schuhmann<sup>1</sup>, Mike R. Jones<sup>2</sup>, Raoul N. Frese<sup>3</sup>, Vincent M. Friebe<sup>3</sup>, Nicolas Plumeré<sup>1</sup> (<sup>1</sup>Bochum, Germany; <sup>2</sup>Bristol, United Kingdom; <sup>3</sup>Amsterdam, Netherlands)
- P115 The impact of light on the control of phototropin expression**  
Justyna Łabuz, Aneta Bažant, Piotr Zglobicki, Agnieszka Katarzyna Banaś, Anna Grzyb, Paweł Hermanowicz, Dominika Jagiełło-Flasińska (Krakow, Poland)
- P116 Ultrafast photophysics of a substituted Zn-Phthalocyanine H-aggregate**  
Sandra Doria<sup>1</sup>, Andrea Lapini<sup>1</sup>, Mariangela Di Donato<sup>1</sup>, Paolo Foggi<sup>1</sup>, Roberto Righini<sup>1</sup>, Franco Fusi<sup>2</sup> (<sup>1</sup>Sesto Fiorentino (FI), <sup>2</sup>Firenze, Italy)
- P117 The Carotenoids Involvement in Energy Dissipation Processes in LHCII: a Femtosecond-Stimulated Raman Study**  
 Francesco Saccon (London, United Kingdom)
- P118 The versatile electron transport pathways of cyanobacteria**  
Daniel Solymosi<sup>1</sup>, Anita Santana-Sánchez<sup>1</sup>, David Lea-Smith<sup>2</sup>, Yagut Allahverdiyeva<sup>1</sup>, Eva-Mari Aro<sup>1</sup>, Chris Howe<sup>2</sup> (<sup>1</sup>Turku, Finland; <sup>2</sup>Cambridge, United Kingdom)



- P119**     **Temperature dependence of the triplet-triplet energy transfer in photosynthetic light-harvesting complexes**  
Ivo Stanislav Vinklár<sup>1</sup>, Till Bornemann<sup>2</sup>, Eckhard Hofmann<sup>2</sup>, David Bína<sup>3</sup>, Heiko Lokstein<sup>1</sup>, Jakub Pšenčík<sup>1</sup> (<sup>1</sup>Prague, <sup>3</sup>Ceske Budejovice, Czech Republic; <sup>2</sup>Bochum, Germany)
- P120**     **The dynamics and regulation of leaf phenolic accumulation and composition in sunlight**  
Sari Marjatta Siipola, Neha Rai, Luis Morales, Mikael Brosche, Pedro Aphalo (Helsinki, Finland)
- P121**     **The contribution of NPQ and D1 repair to PSII photoprotection**  
Alexandra Jacquelyn Townsend, Maxwell Adam Ware, Alexander V Ruban (London, United Kingdom)
- P122**     **Phototropin2 interacts with proteins of the sumoylation pathway**  
Aneta Bažant<sup>1</sup>, Dominika Jagiełło-Flasińska<sup>1</sup>, Olga Sztatelman<sup>2</sup>, Paweł Hermanowicz<sup>1</sup>, Agnieszka Katarzyna Banaś<sup>1</sup>, Wojciech Strzałka<sup>1</sup>, Halina Gabryś<sup>1</sup>, Justyna Łabuz<sup>1</sup> (<sup>1</sup>Krakow, <sup>2</sup>Warsaw, Poland)
- P123**     **Time-resolved FTIR studies on electron transfer reactions and associated events in photosynthetic reaction centers and membranes**  
Alberto Mezzetti<sup>1,2</sup>, Marco Malferrari<sup>3</sup>, Francesco Francia<sup>3</sup>, Giovanni Venturoli<sup>3</sup>, Winfried Leibl<sup>2</sup> (<sup>1</sup>Paris, <sup>2</sup>Gif-sur-Yvette, France; <sup>3</sup>Bologna, Italy)